DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020464 Address: 333 Burma Road **Date Inspected:** 09-Feb-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Oiu Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

Repair welding of weld joint no: SEG3020E-044 [Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3048A, complete joint penetration (CJP) weld at Panel Point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). AB/F QA was identified as Mr. Yan Bao Jia. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2735 Rev-0.

Repair welding of weld joint no: SEG3020X-012 [Bottom Plate (BP) 3091A to Longitudinal Diaphragm (LD) 3049A, complete joint penetration (CJP) weld in between Panel Point (PP) 125.5~126]. The welder is identified as 066398 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc

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Welding (SMAW). AB/F QA was identified as Mr. Xiao Jun Peng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2659 Rev-2.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AB-055 (Stiffener on Longitudinal Diaphragm (LD) 3050A to Floor Beam (FB) 3339A, CJP weld at PP128). The welder is identified as 067949 and was observed welding in the 1G position. AB/F QA was identified as Mr. Yan Bao Jia. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

The SMAW process on weld joint no: SEG3020D-062 (Stiffener on Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3051A, CJP weld at PP128.3). The welder is identified as 069683 and was observed welding in the 4G position. AB/F QA was identified as Mr. Xiao Jun Peng. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The FCAW process on weld joint no: SEG3020V-070 (Floor Beam (FB) 3315A to Floor Beam (FB) 3315C, CJP weld at PP125). The welder is identified as 067764 and was observed welding in the 2G position. AB/F QA was identified as Mr. Xiao Jun Peng. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020AB-132 (Stiffener on Longitudinal Diaphragm (LD) 3050A to Floor Beam (FB) 3343A, CJP weld at PP128.3). The welder is identified as 067949 and was observed welding in the 1G position. AB/F QA was identified as Mr. Yan Bao Jia. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

Repair welding of weld joint no: SEG3020E-044 [Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3048A, complete joint penetration (CJP) weld at Panel Point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). AB/F QA was identified as Mr. Yan Bao Jia. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2735 Rev-0.

The FCAW process on weld joint no: SEG3020AG-005 (Floor Beam (FB) 3317A to Edge Panel (EP) 3030B, CJP weld at PP125). The welder is identified as 066421 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

During random in process inspection this QA inspector observed that the Edge Beam (EB) 3056A welded with Floor Beam (FB) 3329A at Panel Point (PP) 127. The weld number is identified as SEG3020M-186. As per shop drawing, the flange plate X 4807A of EB3056A required cope hole with radius of 30mm but on field installed flange plate does not have any cope hole. This issue has been discussed with ZPMC CWI Mr. Qiu Wen and CT lead QA. Mr. Qiu Wen informed this QA that this issue would be corrected in manner compliant with contract document. Attached photograph provide additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

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documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer